

sects is to rehearse a timeworn, popular, but non-scientific conclusion. Again it has been established beyond all doubt that etiolative elongations of plants in darkness are not adaptations, and are in fact exhibited by a scant and meaningless majority of species. The exaggerated thickenings and elongations of etiolated organs are due simply to morphogenetic disturbances, the utility of which is in some cases pure accident. The diurnal movements of leaves are recognized as useful by the author, but he ignores the well-known facts as to the benefit of nocturnal movements of the same organs. After the same manner, botanical equations set forth by Darwin, long outlawed by the progress of the science are rehearsed and annihilated to demonstrate the weakness of natural selection. A few hours' consultation with a working botanist would have eliminated these crudities from a book, which for the most part deals clearly and sanely with the questions taken under consideration.

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## CORRESPONDENCE

### Linnaeus' Work on Ferns

EDITOR OF TORREYA :

There is an article in the October number of this journal in which an account of Linnaeus' work on ferns and his herbarium has been given, an account which contains, as it seems to me, several erroneous statements, which I cannot abstain from correcting.

I shall not enter upon any discussion about whether Linnaeus were the originator of binominal nomenclature, for this question has been settled long ago by a number of able writers in the "history of Botany"; nor shall I make any attempt to defend "the miscalled Father of Botany" (p. 147), "who must ever plead guilty to the charge of needlessly changing names already given by his predecessors" (p. 150)!

But what I wish to take up is the manner in which the author of the article, cited above, has interpreted Linnaeus' method of

preserving his "supposed" types. As to this question I wish the author had read some works by Fries, Hartman and several others, in which an account has been given of Linnaeus' herbarium, together with his method of collecting, of citing, etc. It is, indeed, a very risky matter to undertake the study of an old herbarium without previously having looked into its history, and without being more than even a little familiar with the works of the master. And nobody can expect to get any insight into botanical science as taught by Linnaeus by simply using his "Species Plantarum, 1753, as the starting 'Catalogue' of botanical nomenclature," and ignoring all the rest of his writings. Now in regard to the statement in the article, that "Linnaeus' herbarium is of comparatively little value for the determination of his types" (p. 148), it is necessary to call attention to the well-known fact that Linnaeus did not work with types. When, furthermore, the author declares "that the types of Linnaeus must very largely depend on the plates and descriptions of the early writers from which he quoted," I wish to refer to Linnaeus' own words (Mant. 2) that the synonyms are of little importance in the determination of his species; moreover that the figures which he cites, were not intended to give any exact illustration of his species, but only some idea of their general habit or aspect.

Finally I desire to correct the statement about *Osmunda Lunaria* (p. 149), that *Botrychium matricariae* is the only plant preserved as this species. The Linnæan specimen is not, as the author states, labeled *Osmunda Lunaria*, but, and in Linnaeus' own handwriting: "*Osmunda Lunaria*  $\beta$ ," and this letter  $\beta$  refers to the variety in Species Plantarum, which later became *Botrychium matricariae* Schrank, thus the specimen preserved in this case well "matches the name and diagnosis."

THEO. HOLM.

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